

AMENDMENTS TO THE CLAIMS:

Please amend Claims 1-5, 16, 36, 41 and 42 as follows:

1. (Currently Amended) An imager based optical code reading and weighing system comprising:

an image sensor having a field of view;

a weighing platform in the field of view of the image sensor which platform moves in response to the weight of an object placed on the platform; and

an electronic processor receiving image information from the image sensor for detecting and decoding an optical code in the field of view of the image sensor; for measuring the amount of movement of the platform in response to the weight of the object placed on the platform from image data received from the image sensor; and for producing a signal related in value to the weight of the object from the image data received from the image sensor.

2. (Currently Amended) The ~~apparatus~~ system of claim 1, further comprising a laser light projector for projecting a pattern of light in the field of view of the image sensor along an optical path which is not colinear with at least one of an optical axis of the image sensor and an axis of movement of the weighing platform in response to the weight of the object, and wherein the image sensor detects a reflection of the pattern and produces therefrom the signal related in value to the weight of the object.

3. (Currently Amended) The ~~apparatus~~ system of claim 2 wherein the pattern includes a line and wherein movement of the platform is detected by measuring a dimension of a discontinuity in the line at an edge of the platform.

4. (Currently Amended) The ~~apparatus~~ system of claim 3, wherein the pattern includes a line and wherein a vertical height of the object on the platform is detected by measuring a dimension of a discontinuity in the line at an upper edge of the object.

5. (Currently Amended) The ~~apparatus~~ system of claim 2, wherein the pattern includes two non-parallel lines and wherein dimensions of the object on the platform are detected by measuring the length of a segment of one line lying between edge discontinuities in the direction of the length of the object, and by measuring the length of a segment of the other line lying between edge discontinuities in the direction of the width of the object.

Claims 6-15 Canceled.

16. (Currently Amended) An apparatus for detecting optical codes on a target object and one or more physical parameters of ~~[[a]]~~ the target object comprising:

an image sensor for producing electronic signals corresponding to at least one frame of a two dimensional array of pixel information for a field of view containing the target object;

means for projecting a pattern onto a target in the field of view of the image sensor; and

means for reading an optical code in the field of view of the image sensor and for determining a physical parameter of the target object from at least one frame having an image representing the reflection of the pattern from the target object onto the image sensor.

17. (Original) The apparatus of claim 16, wherein the physical parameter of the target object is determined by measuring edge discontinuities in the pattern caused by that target object.

18. (Original) The apparatus of claim 17, further comprising a weighing platform for supporting the target object in the field of view of the image sensor; and

means for supporting the platform which permits the platform to move in a vertical direction for a distance approximately proportional to the weight of the target object.

19. (Original) The apparatus of claim 18, further comprising a counter surface adjacent to the platform, wherein the edge discontinuity measured is between an edge of the platform and an edge of the counter surface.

20. (Original) The apparatus of claim 19, wherein the projected pattern is one or more lines and wherein the measured edge discontinuity is a separation between reflected segments of the line.

21. (Original) The apparatus of claim 19, wherein the projected pattern includes two approximately perpendicular lines which cross near the center of the weighing platform.

Claims 22-35 Canceled.

36. (Currently Amended) An imaging system for measuring an orthogonal dimension of a rectangular solid object in a field of view of an imager, comprising:

means for obtaining pixel information ~~for~~ corresponding to at least one frame of the field of view of the imager;

means for determining a distance between the object and the imager using the pixel information;

means for determining the angles between edges of the rectangular solid object meeting at a corner of the object, determining an imaged length of at least one of the edges of the rectangular solid object and scaling the determined image length of the at least one edge responsive to the determined angles and determined distance between the rectangular solid object and the imager to obtain an approximation of the actual length of said at least one edge of the rectangular solid object.

37. (Original) The apparatus of claim 36, wherein the distance determining means includes an optical device for projecting a pattern onto the object and wherein the distance between the object and the imager is determined from a detected image of the pattern projected onto the object.

38. (Original) The apparatus of claim 36, wherein the distance between the object and the imager is determined from at least one image dimension of an optical code symbol of known size on the object.

39. (Original) The apparatus of claim 36, wherein the imager is a handheld imaging optical code reader.

40. (Original) The apparatus of claim 36, wherein the apparatus determines the image length and actual length of three edges meeting at a nearest corner of the object.

41. (Currently Amended) An imaging system for reading optical codes and measuring a dimension of one or more features in a field of view of the system, comprising:

an image sensor having a field of view;

a pattern projector for projecting a pattern into the field of view;

an electronic processor receiving image information from the image sensor for detecting and decoding an optical code in the field of view of the image sensor and for producing a signal related in value to the dimension of the one or more features in the field of view based on image information relating to at least a portion of the projected pattern, wherein said image information corresponds to at least one frame of the field of view.

42. (Currently Amended) The system of claim 41, further comprising a weighing platform on which the pattern is projected, which platform moves in response to the weight

placed thereon, and wherein a signal responsive to the amount of movement of the platform is determined based on image information.

43. (Original) The system of claim 42, wherein the weight of an object on the platform is calculated from the value of the signal.

44. (Original) The system of claim 1, wherein measurement of movement of the platform is determined from image data relating to indicia marked on the platform.